

Name: _____ TP: _____

FORM A

HW81: Slope from Equations
Geometry

Due Date: Monday, March 24th 2014

Tues, March 25th

Failure to show all work and write in complete sentences will result in LaSalle.

1) A pair of jeans costs \$18. They are on sale for 15% off. Sales tax is 9.5%. What is the final price?

- A. \$12.50
- B. \$16.75
- C. \$18.99
- D. \$22.67

SALE:

SALES TAX:
(use new sale total, not \$18)

2) A small town has a population of 1800 people. One year the population increases by 5%. The next year, it decreases by 10%, how many people does the town end up with?

- A. 1701
- B. 1710
- C. 1753
- D. 1795

INCREASES

DECREASES

*5% ≠ .5

(use NEW total)

b) EXPLAIN: Did you just multiply? Or, did you add or subtract to the total?

b) EXPLAIN: Did you just multiply? Or, did you add or subtract to the total?

COMPLETE SENTENCES

3)

Mars has much less gravity than Earth, so objects on Mars weigh about 38% of what they would on Earth. If Jason weighs 175 pounds on Earth, about how many pounds would he weigh on Mars?

- F. 66.5
- G. 89
- H. 108.5
- J. 241
- K. 460.5

4)

If $\sqrt{4x} - 2 = 6$, then $x = ?$

- F. 4
- G. 8
- H. 16
- J. 24
- K. 32

5) Error Analysis. In the box to the right, describe and correct the mistake made in solving the problem below:

$$-b - 4b \geq 20$$



$$\begin{array}{r} -5b \geq 20 \\ \underline{-5} \quad \underline{-5} \\ b \geq -4 \end{array}$$

Give me a Z! G'me an ESTY! PUT IT TOGETHER! ZESTY!

6)

When $3x - 12y = 6$ and $y = -2$, what is the value of x ?

F. -18

G. -6

H. $\frac{4}{3}$

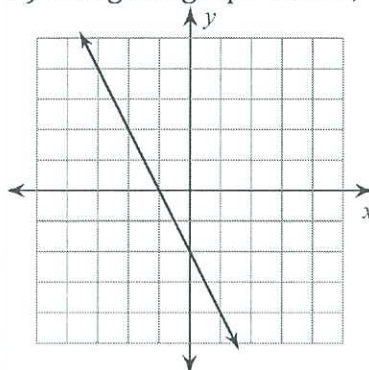
J. 4

K. 10

You know what y equals. Substitute. Then, solve for x .

7) Using the graph below,

+ or -?

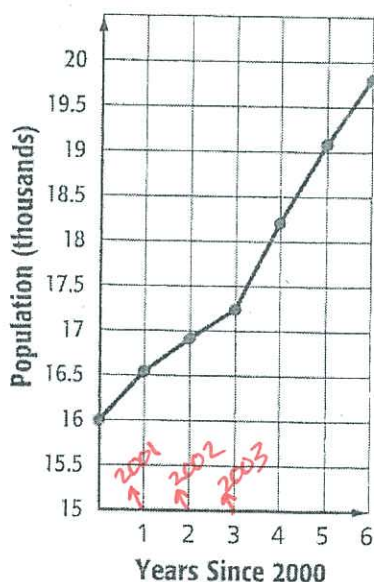


a) Identify three ordered pairs on the graph:

b) Determine the slope of the line.

8) Use the graph below to answer the questions to the right:

POPULATION GROWTH The graph shows the population growth in Leesburg, Florida, since 2000. (Lesson 3-3)



a) For which time period is the rate of change the greatest? Justify your response.

What years do you see the greatest increase in population?

b) What was the approximate population in 2005?

c) Approximately how much did the population grow from 2000 to 2001?

COMPLETE SENTENCES

9) Determine the slope of the equations below:

a) $y = -2x + 8$

$y = mx + b$
SLOPE

$m =$

b) $3x = 9y - 6$

$3x + 6 = 9y$ → FINISH!

$m =$

10) Determine the slope of the equations below:

a) $2x + 3y = 8$

$-2x + 3y = -2x + 8$

$m =$

b) $4x - 2y = 10$

$m =$

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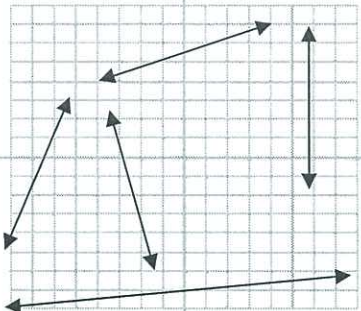
Form 4

HW82: Slope & Parallel Lines

Geometry

Due Date: Wednesday, March 26th 2014

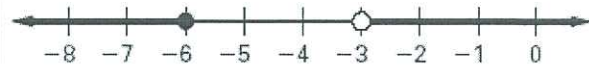
Failure to show all work and write in complete sentences will result in LaSalle.

<p>1) Determine whether the two lines are parallel:</p> $\begin{cases} y = 3x + 4 \rightarrow m = 3 \\ 12x = 4y - 24 \rightarrow m = \square \end{cases}$ <p>$24 + 12x = 4y$</p>	<p>2) What is the slope of a line parallel to $x - 5y = -20 - x$</p> <p>$-x - 5y = -20 - x$</p> <p>$-5y = -20$</p> <p>$m =$</p>
<p>3) If $6x - 5 = 3x - 16$, then $x =$?</p> <p>f) -11 g) -7 h) $-\frac{11}{3}$ j) $\frac{11}{3}$ k) 7</p> <p>*Variables on one side & #s on other</p>	<p>4) Disregarding sales tax, how much will you save when you buy a \$12.00 video that is on sale for 20% off?</p> <p>a) \$0.24 b) \$0.48 c) \$1.20 d) \$2.40 e) \$3.60</p> <p>*It ONLY asks how much you will save!</p>
<p>5) Find the slope of a line passing through the points (11,-7) and (-2,-4).</p> <p>$x_1 \ y_1 \ x_2 \ y_2$</p> <p>b) Explain how you know when two lines are parallel.</p>	<p>6) Circle the line that has the biggest positive slope. Box the line that has the smallest positive slope.</p>  <p>Explain your reasoning below:</p>
<p>7) If $k + 5v = 2v - 9$, what does v equal if k is equivalent to 12?</p> <p>a) -45 b) -7 c) 7 d) 45</p> <p>$k = 12$, solve for v</p>	<p>8) Kameron's brother paid 40% of a \$50.00 dinner bill. Kameron paid the remaining plus a 20% tip. How much did Kameron pay total (hint: there are multiple steps to this problem! First, figure out how much Kameron paid before he tipped!)?</p> <p>Kam's brother: 40% of \$50 = \square</p> <p>Kam: $50 - \square =$</p> <p>\oplus 20% tip on \$50.00 = \square</p>

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9) What solution set defines $4 - 7x > 46$? (Solve and graph)

10) Which of the following compound inequalities represents the solution set graphed below:

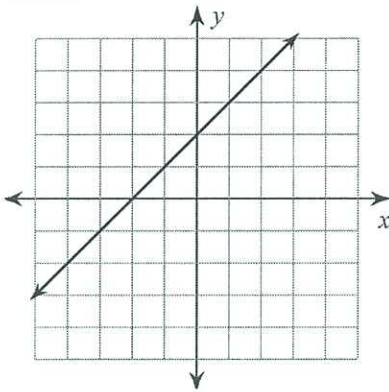


- a. $x \leq -6$ or $x > -3$
- b. $x \geq -6$ and $x < -3$
- c. $x \geq -6$ or $x < -3$
- d. $x > -6$ and $x < -3$

And/or?

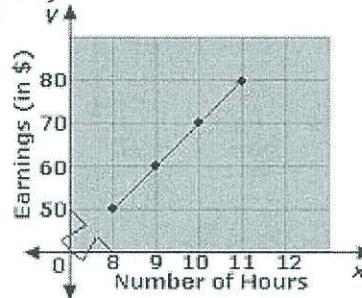
What do you need to be careful of when solving the inequality above?

11) Draw a graph that is parallel to the graph below.



Justify how you know the lines are parallel.
(Mention the slope)

12)



watch the units.

- a) Find the rate of change. (SLOPE!)
- b) Describe the rate of change in a complete sentence.

13) Solve and graph:

$$-9 - 5n \leq -44$$

14) Write the following equations in slope-intercept form, and identify the slope:

a) $2x + y = -2$

b) $4x - 5y = -25$

15) Determine which of the following lines, if any, are parallel (SHOW math and EXPLAIN in words).

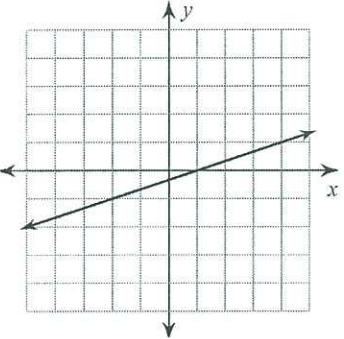
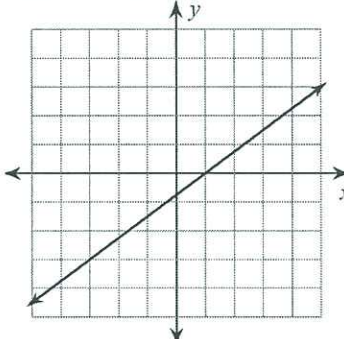
Line a: $12x - 6y = 14$, Line b: $y = -\frac{1}{2}x - 5$, Line c: $10x + 6y = 1$

Solve for y to identify the slope!

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<p>1) Write an equation of a line parallel to $32 = -4x + 8y$</p> <p><i>* Move $-4x$!</i> <i>* Then isolate y</i></p>	<p>2) If $9a = 6(a + b)$, and b is equivalent to 4, what is the value of a? <u>$b = 4$</u></p> <p>a) 10 b) 5 c) 8 d) 2</p>
<p>3) Which of the following is the solution set of the inequality $7(x + 3) < 14$?</p> <p>A) $x > -1$ B) $x \leq -1$ C) $x \geq 1$ D) $x < 1$ E) $x < -1$</p>	<p>4) If $3(a - 6) = -21$, then $a = ?$</p> <p>a) -9 b) $-\frac{3}{2}$ c) -1 d) $\frac{7}{3}$ e) 5</p>
<p>5) Find the slope:</p>  <p>Method 1:</p> <p>Method 2:</p> <p>Identify two points on the line: <i>* Points need to be drawn in where they hit x & y coordinate</i></p>	<p>6) Draw a line parallel to the line below:</p>  <p><i>Justify how you know the lines are parallel. (Discuss the slope)</i></p>
<p>7) Write the following equations in slope-intercept form, and identify the slope:</p> <p>a) $7x + y = -3$</p> <p>b) $3x + 4y = -8$</p>	<p>8) For the inequality $-6x + 5 \leq -16$, which of the following options represents the solution?</p> <p>a) $x \leq 3.5$ b) $x \geq 3.5$ c) $x \leq -3.5$ d) $x \geq -3.5$</p> <p><i>Solve it!</i></p>

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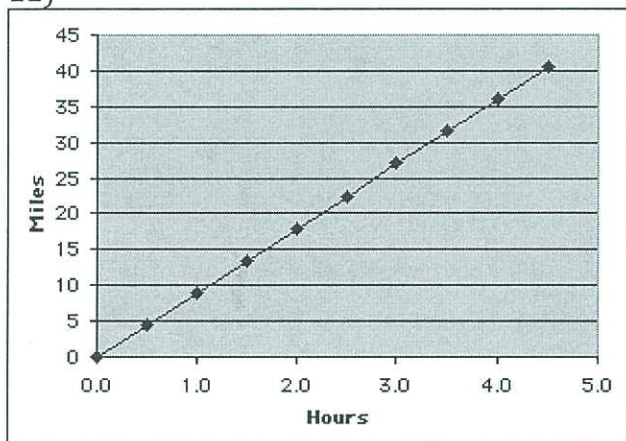
9) What is the slope of a line parallel to $2x - 4y = 8$?

10) Justify whether or not the graphs of the equations below are parallel (SHOW math and EXPLAIN in words).

$$2y = 4 - 6x$$

$$-6x - 2y = -12$$

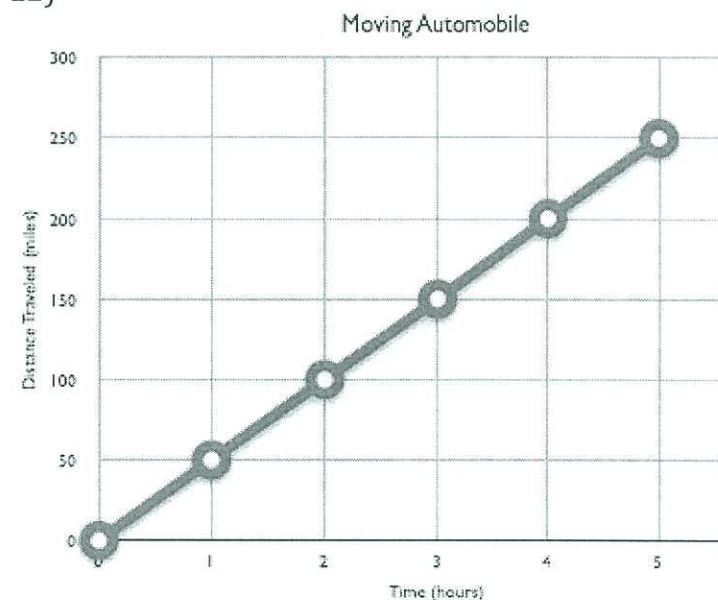
11)



a) Find the rate of change: *SLOPE! watch intervals.*

b) Describe the rate of change in a sentence:

12)



a) Find the rate of change:

b) Describe the rate of change in a sentence:

13) Determine which of the following lines, if any, are parallel (SHOW math and EXPLAIN in words).

Line A: $2x = 4y + 8$ Line B: $4y = 6x - 1$ Line C: $y = -2x + 4$

Give me a Z! G'me an ESTY! PUT IT TOGETHER! ZESTY!